

I claim:

1. A semiconductor structure, comprising:

a substrate;

at least one component structure applied to said substrate and having at least one crack formed therein; and

a repair layer having a repair material filling said crack, said repair layer being removed again before one of further layers being applied and before subsequent processes being carried out.

2. The semiconductor structure according to claim 1, further comprising a protective layer applied on said at least one component structure, said repair layer has a thickness significantly less than a thickness of said protective layer.

3. The semiconductor structure according to claim 1, wherein said repair layer is formed from a same material as a material of said protective layer.

4. The semiconductor structure according to claim 1, wherein said repair layer is formed from a different material as a material of said protective layer.

5. The semiconductor structure according to claim 1, wherein said repair layer is removed by at least one etching process selected from the group consisting of an isotropic etching process, a wet-chemical etching process, a fixed-time etching process, and an etching process in which an end point is recorded, residues of said repair layer remaining in said crack.

6. The semiconductor structure according to claim 1, wherein said repair layer is deposited by a conformal deposition process.

7. The semiconductor structure according to claim 2, wherein said protective layer is formed from at least one layer selected from the group consisting of a silicon dioxide layer and a TEOS layer; and

said repair layer is formed from at least one layer selected from the group consisting of a silicon dioxide layer and a TEOS layer.

8. The semiconductor structure according to claim 1, further comprising spacer structures for protecting the semiconductor structure and for assisting in an implantation process, said spacer structures containing a material selected from the group consisting of silicon dioxide, TEOS, and nitride.

9. The semiconductor structure according to claim 2, wherein said repair layer is applied immediately before performing a subsequent etching step for removing said protective layer.

10. The semiconductor structure according to claim 2, wherein said repair layer has a thickness less than one-third of a thickness of said protective layer.

11. The semiconductor structure according to claim 1, wherein said repair layer has a thickness half a maximum crack width.

12. The semiconductor structure according to claim 2, wherein said repair layer is applied using a same process as said protective layer.

13. The semiconductor structure according to claim 2, wherein said repair layer is applied using a different process than a process used for applying said protective layer.

14. The semiconductor structure according to claim 2, wherein said protective layer is removed after said protective layer has been repaired and after the subsequent processes have been carried out with the aid of at least etching process selected from the group consisting of an isotropic etching process, a wet-chemical etching process, and a fixed-time etching process.